

## Sequence Listing

<110> Botstein,David

Desnoyers,Luc

Ferrara,Napoleone

Fong,Sherman

Gao,Wei-Qiang

Goddard,Audrey

Gurney,Austin L.

Pan,James

Roy,Margaret Ann

Stewart,Timothy A.

Tumas,Daniel

Watanabe,Colin K.

Wood,William I.

<120> Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same

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gtgttgtaa ccgtaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1942

<210> 11

<211> 325

<212> PRT

<213> Homo sapiens

<400> 11

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Ile	Pro	Leu	Glu	Lys	Leu	Ala	Gln	Ala	Pro	Glu	Gln	Pro	Gly	Gln
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Glu	Lys	Arg	Glu	His	Ala	Thr	Arg	Asp	Gly	Pro	Gly	Arg	Val	Asn
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Glu	Leu	Gly	Arg	Pro	Ala	Arg	Asp	Glu	Gly	Gly	Ser	Gly	Arg	Asp
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Trp	Lys	Ser	Lys	Ser	Gly	Arg	Gly	Leu	Ala	Gly	Arg	Glu	Pro	Trp
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Ser	Lys	Leu	Lys	Gln	Ala	Trp	Val	Ser	Gln	Gly	Gly	Gly	Ala	Lys
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Ala	Gly	Asp	Leu	Gln	Val	Arg	Pro	Arg	Gly	Asp	Thr	Pro	Gln	Ala
				110					115					120

Glu	Ala	Leu	Ala	Ala	Ala	Ala	Gln	Asp	Ala	Ile	Gly	Pro	Glu	Leu
				125					130					135

Ala	Pro	Thr	Pro	Glu	Pro	Pro	Glu	Glu	Tyr	Val	Tyr	Pro	Asp	Tyr
				140					145					150

Arg	Gly	Lys	Gly	Cys	Val	Asp	Glu	Ser	Gly	Phe	Val	Tyr	Ala	Ile
				155					160					165

Gly	Glu	Lys	Phe	Ala	Pro	Gly	Pro	Ser	Ala	Cys	Pro	Cys	Leu	Cys
				170					175					180

Thr	Glu	Glu	Gly	Pro	Leu	Cys	Ala	Gln	Pro	Glu	Cys	Pro	Arg	Leu
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His	Pro	Arg	Cys	Ile	His	Val	Asp	Thr	Ser	Gln	Cys	Cys	Pro	Gln
				200					205					210

Cys	Lys	Glu	Arg	Lys	Asn	Tyr	Cys	Glu	Phe	Arg	Gly	Lys	Thr	Tyr
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Gln	Thr	Leu	Glu	Glu	Phe	Val	Val	Ser	Pro	Cys	Glu	Arg	Cys	Arg
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245	250	255
Gln Thr Glu Cys Val Asp Pro Val Tyr Glu Pro Asp Gln Cys Cys		
260	265	270
Pro Ile Cys Lys Asn Gly Pro Asn Cys Phe Ala Glu Thr Ala Val		
275	280	285
Ile Pro Ala Gly Arg Glu Val Lys Thr Asp Glu Cys Thr Ile Cys		
290	295	300
His Cys Thr Tyr Glu Glu Gly Thr Trp Arg Ile Glu Arg Gln Ala		
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Met Cys Thr Arg His Glu Cys Arg Gln Met		
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 <212> DNA  
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<220>  
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<400> 12  
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<210> 13  
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 <223> Synthetic Oligonucleotide Probe

<400> 13  
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 <213> Homo sapiens

<400> 15

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<210> 16  
<211> 437  
<212> PRT  
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Asn Thr Ser Cys Asp Ser Gly Leu Gly Cys Gln Asp Thr Leu Met  
50 55 60  
Leu Ile Glu Ser Gly Pro Gln Val Ser Leu Val Leu Ser Lys Gly  
65 70 75  
Cys Thr Glu Ala Lys Asp Gln Glu Pro Arg Val Thr Glu His Arg  
80 85 90  
Met Gly Pro Gly Leu Ser Leu Ile Ser Tyr Thr Phe Val Cys Arg  
95 100 105  
Gln Glu Asp Phe Cys Asn Asn Leu Val Asn Ser Leu Pro Leu Trp  
110 115 120  
Ala Pro Gln Pro Pro Ala Asp Pro Gly Ser Leu Arg Cys Pro Val  
125 130 135  
Cys Leu Ser Met Glu Gly Cys Leu Glu Gly Thr Thr Glu Glu Ile  
140 145 150  
Cys Pro Lys Gly Thr Thr His Cys Tyr Asp Gly Leu Leu Arg Leu  
155 160 165  
Arg Gly Gly Gly Ile Phe Ser Asn Leu Arg Val Gln Gly Cys Met  
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Pro Gln Pro Gly Cys Asn Leu Leu Asn Gly Thr Gln Glu Ile Gly  
185 190 195  
Pro Val Gly Met Thr Glu Asn Cys Asn Arg Lys Asp Phe Leu Thr  
200 205 210  
Cys His Arg Gly Thr Thr Ile Met Thr His Gly Asn Leu Ala Gln  
215 220 225  
Glu Pro Thr Asp Trp Thr Thr Ser Asn Thr Glu Met Cys Glu Val



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245	250	255
Thr Ser Thr Leu Val Gly Thr Lys Gly Cys Ser Thr Val Gly Ala		
260	265	270
Gln Asn Ser Gln Lys Thr Thr Ile His Ser Ala Pro Pro Gly Val		
275	280	285
Leu Val Ala Ser Tyr Thr His Phe Cys Ser Ser Asp Leu Cys Asn		
290	295	300
Ser Ala Ser Ser Ser Ser Val Leu Leu Asn Ser Leu Pro Pro Gln		
305	310	315
Ala Ala Pro Val Pro Gly Asp Arg Gln Cys Pro Thr Cys Val Gln		
320	325	330
Pro Leu Gly Thr Cys Ser Ser Gly Ser Pro Arg Met Thr Cys Pro		
335	340	345
Arg Gly Ala Thr His Cys Tyr Asp Gly Tyr Ile His Leu Ser Gly		
350	355	360
Gly Gly Leu Ser Thr Lys Met Ser Ile Gln Gly Cys Val Ala Gln		
365	370	375
Pro Ser Ser Phe Leu Leu Asn His Thr Arg Gln Ile Gly Ile Phe		
380	385	390
Ser Ala Arg Glu Lys Arg Asp Val Gln Pro Pro Ala Ser Gln His		
395	400	405
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Ser Cys		

<210> 17  
 <211> 2387  
 <212> DNA  
 <213> Homo sapiens

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<210> 18

<211> 487

<212> PRT

<213> Homo sapiens

<400> 18

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Ser	Leu	Leu	Glu	Pro	Arg	Asp	Pro	Val	Ala	Ser	Ser	Leu	Ser	Pro
			35						40					45
Tyr	Phe	Gly	Thr	Lys	Thr	Arg	Tyr	Glu	Asp	Val	Asn	Pro	Val	Leu
			50						55					60
Leu	Ser	Gly	Pro	Glu	Ala	Pro	Trp	Arg	Asp	Pro	Glu	Leu	Leu	Glu
			65						70					75
Gly	Thr	Cys	Thr	Pro	Val	Gln	Leu	Val	Ala	Leu	Ile	Arg	His	Gly
			80						85					90
Thr	Arg	Tyr	Pro	Thr	Val	Lys	Gln	Ile	Arg	Lys	Leu	Arg	Gln	Leu
			95						100					105
His	Gly	Leu	Leu	Gln	Ala	Arg	Gly	Ser	Arg	Asp	Gly	Gly	Ala	Ser

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Leu Trp Tyr Ala	Asp Trp Met Asp Gly	Gln Leu Val Glu Lys	Gly
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Arg Gln Asp Met	Arg Gln Leu Ala Leu	Arg Leu Ala Ser Leu	Phe
	155	160	165
Pro Ala Leu Phe	Ser Arg Glu Asn Tyr	Gly Arg Leu Arg Leu	Ile
	170	175	180
Thr Ser Ser Lys	His Arg Cys Met Asp	Ser Ser Ala Ala Phe	Leu
	185	190	195
Gln Gly Leu Trp	Gln His Tyr His Pro	Gly Leu Pro Pro Pro	Asp
	200	205	210
Val Ala Asp Met	Glu Phe Gly Pro Pro	Thr Val Asn Asp Lys	Leu
	215	220	225
Met Arg Phe Phe	Asp His Cys Glu Lys	Phe Leu Thr Glu Val	Glu
	230	235	240
Lys Asn Ala Thr	Ala Leu Tyr His Val	Glu Ala Phe Lys Thr	Gly
	245	250	255
Pro Glu Met Gln	Asn Ile Leu Lys Lys	Val Ala Ala Thr Leu	Gln
	260	265	270
Val Pro Val Asn	Asp Leu Asn Ala Asp	Leu Ile Gln Val Ala	Phe
	275	280	285
Phe Thr Cys Ser	Phe Asp Leu Ala Ile	Lys Gly Val Lys Ser	Pro
	290	295	300
Trp Cys Asp Val	Phe Asp Ile Asp Asp	Ala Lys Val Leu Glu	Tyr
	305	310	315
Leu Asn Asp Leu	Lys Gln Tyr Trp Lys	Arg Gly Tyr Gly Tyr	Thr
	320	325	330
Ile Asn Ser Arg	Ser Ser Cys Thr Leu	Phe Gln Asp Ile Phe	Gln
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His Leu Asp Lys	Ala Val Glu Gln Lys	Gln Arg Ser Gln Pro	Ile
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Ser Ser Pro Val	Ile Leu Gln Phe Gly	His Ala Glu Thr Leu	Leu
	365	370	375
Pro Leu Leu Ser	Leu Met Gly Tyr Phe	Lys Asp Lys Glu Pro	Leu
	380	385	390
Thr Ala Tyr Asn	Tyr Lys Lys Gln Met	His Arg Lys Phe Arg	Ser
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His	Cys	Glu	Asn	Ala	Lys	Thr	Pro	Lys	Glu	Gln	Phe	Arg	Val	Gln
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Met	Leu	Leu	Asn	Glu	Lys	Val	Leu	Pro	Leu	Ala	Tyr	Ser	Gln	Glu
				440					445				450	
Thr	Val	Ser	Phe	Tyr	Glu	Asp	Leu	Lys	Asn	His	Tyr	Lys	Asp	Ile
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 <212> DNA  
 <213> Homo sapiens

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Phe	Glu	Ser	Val	Glu	Leu	Ser	Cys	Ile	Ile	Thr	Asp	Ser	Gln	Thr	50	55	60	
Ser	Asp	Pro	Arg	Ile	Glu	Trp	Lys	Lys	Ile	Gln	Asp	Glu	Gln	Thr	65	70	75	
Thr	Tyr	Val	Phe	Phe	Asp	Asn	Lys	Ile	Gln	Gly	Asp	Leu	Ala	Gly	80	85	90	
Arg	Ala	Glu	Ile	Leu	Gly	Lys	Thr	Ser	Leu	Lys	Ile	Trp	Asn	Val	95	100	105	
Thr	Arg	Arg	Asp	Ser	Ala	Leu	Tyr	Arg	Cys	Glu	Val	Val	Ala	Arg	110	115	120	
Asn	Asp	Arg	Lys	Glu	Ile	Asp	Glu	Ile	Val	Ile	Glu	Leu	Thr	Val	125	130	135	
Gln	Val	Lys	Pro	Val	Thr	Pro	Val	Cys	Arg	Val	Pro	Lys	Ala	Val	140	145	150	
Pro	Val	Gly	Lys	Met	Ala	Thr	Leu	His	Cys	Gln	Glu	Ser	Glu	Gly	155	160	165	
His	Pro	Arg	Pro	His	Tyr	Ser	Trp	Tyr	Arg	Asn	Asp	Val	Pro	Leu	170	175	180	
Pro	Thr	Asp	Ser	Arg	Ala	Asn	Pro	Arg	Phe	Arg	Asn	Ser	Ser	Phe	185	190	195	
His	Leu	Asn	Ser	Glu	Thr	Gly	Thr	Leu	Val	Phe	Thr	Ala	Val	His	200	205	210	
Lys	Asp	Asp	Ser	Gly	Gln	Tyr	Tyr	Cys	Ile	Ala	Ser	Asn	Asp	Ala	215	220	225	
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Asn	Ile	Gly	Gly	Ile	Ile	Gly	Gly	Val	Leu	Val	Val	Leu	Ala	Val	245	250	255	
Leu	Ala	Leu	Ile	Thr	Leu	Gly	Ile	Cys	Cys	Ala	Tyr	Arg	Arg	Gly	260	265	270	
Tyr	Phe	Ile	Asn	Asn	Lys	Gln	Asp	Gly	Glu	Ser	Tyr	Lys	Asn	Pro	275	280	285	
Gly	Lys	Pro	Asp	Gly	Val	Asn	Tyr	Ile	Arg	Thr	Asp	Glu	Glu	Gly				



290

295

300

Asp Phe Arg His Lys Ser Ser Phe Val Ile  
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&lt;210&gt; 21

&lt;211&gt; 3437

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

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<211> 1029

<212> PRT

<213> Homo sapiens

<400> 22

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Gly	Pro	Pro	Arg	Ala	Asp	Asp	Ser	Glu	Phe	Gln	Ala	Leu	Leu	Asp
				20					25					30
Ile	Trp	Phe	Pro	Glu	Glu	Lys	Pro	Leu	Pro	Thr	Ala	Phe	Leu	Val
				35					40					45
Asp	Thr	Ser	Glu	Glu	Ala	Leu	Leu	Leu	Pro	Asp	Trp	Leu	Lys	Leu
				50					55					60
Arg	Met	Ile	Arg	Ser	Glu	Val	Leu	Arg	Leu	Val	Asp	Ala	Ala	Leu
				65					70					75
Gln	Asp	Leu	Glu	Pro	Gln	Gln	Leu	Leu	Leu	Phe	Val	Gln	Ser	Phe
				80					85					90
Gly	Ile	Pro	Val	Ser	Ser	Met	Ser	Lys	Leu	Leu	Gln	Phe	Leu	Asp
				95					100					105

Gln	Ala	Val	Ala	His	Asp	Pro	Gln	Thr	Leu	Glu	Gln	Asn	Ile	Met	
				110					115					120	
Asp	Lys	Asn	Tyr	Met	Ala	His	Leu	Val	Glu	Val	Gln	His	Glu	Arg	
				125					130					135	
Gly	Ala	Ser	Gly	Gly	Gln	Thr	Phe	His	Ser	Leu	Leu	Thr	Ala	Ser	
				140					145					150	
Leu	Pro	Pro	Arg	Arg	Asp	Ser	Thr	Glu	Ala	Pro	Lys	Pro	Lys	Ser	
				155					160					165	
Ser	Pro	Glu	Gln	Pro	Ile	Gly	Gln	Gly	Arg	Ile	Arg	Val	Gly	Thr	
				170					175					180	
Gln	Leu	Arg	Val	Leu	Gly	Pro	Glu	Asp	Asp	Leu	Ala	Gly	Met	Phe	
				185					190					195	
Leu	Gln	Ile	Phe	Pro	Leu	Ser	Pro	Asp	Pro	Arg	Trp	Gln	Ser	Ser	
				200					205					210	
Ser	Pro	Arg	Pro	Val	Ala	Leu	Ala	Leu	Gln	Gln	Ala	Leu	Gly	Gln	
				215					220					225	
Glu	Leu	Ala	Arg	Val	Val	Gln	Gly	Ser	Pro	Glu	Val	Pro	Gly	Ile	
				230					235					240	
Thr	Val	Arg	Val	Leu	Gln	Ala	Leu	Ala	Thr	Leu	Leu	Ser	Ser	Pro	
				245					250					255	
His	Gly	Gly	Ala	Leu	Val	Met	Ser	Met	His	Arg	Ser	His	Phe	Leu	
				260					265					270	
Ala	Cys	Pro	Leu	Leu	Arg	Gln	Leu	Cys	Gln	Tyr	Gln	Arg	Cys	Val	
				275					280					285	
Pro	Gln	Asp	Thr	Gly	Phe	Ser	Ser	Leu	Phe	Leu	Lys	Val	Leu	Leu	
				290					295					300	
Gln	Met	Leu	Gln	Trp	Leu	Asp	Ser	Pro	Gly	Val	Glu	Gly	Gly	Pro	
				305					310					315	
Leu	Arg	Ala	Gln	Leu	Arg	Met	Leu	Ala	Ser	Gln	Ala	Ser	Ala	Gly	
				320					325					330	
Arg	Arg	Leu	Ser	Asp	Val	Arg	Gly	Gly	Leu	Leu	Arg	Leu	Ala	Glu	
				335					340					345	
Ala	Leu	Ala	Phe	Arg	Gln	Asp	Leu	Glu	Val	Val	Ser	Ser	Thr	Val	
				350					355					360	
Arg	Ala	Val	Ile	Ala	Thr	Leu	Arg	Ser	Gly	Glu	Gln	Cys	Ser	Val	
				365					370					375	
Glu	Pro	Asp	Leu	Ile	Ser	Lys	Val	Leu	Gln	Gly	Leu	Ile	Glu	Val	
				380					385					390	
Arg	Ser	Pro	His	Leu	Glu	Glu	Leu	Leu	Thr	Ala	Phe	Phe	Ser	Ala	

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Thr Ala Asp Ala	Ala Ser Pro Phe Pro	Ala Cys Lys Pro Val Val	
	410	415	420
Val Val Ser Ser	Leu Leu Leu Gln Glu	Glu Glu Pro Leu Ala Gly	
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Gly Lys Pro Gly	Ala Asp Gly Gly Ser	Leu Glu Ala Val Arg Leu	
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Gly Pro Ser Ser	Gly Leu Leu Val Asp	Trp Leu Glu Met Leu Asp	
	455	460	465
Pro Glu Val Val	Ser Ser Cys Pro Asp	Leu Gln Leu Arg Leu Leu	
	470	475	480
Phe Ser Arg Arg	Lys Gly Lys Gly Gln	Ala Gln Val Pro Ser Phe	
	485	490	495
Arg Pro Tyr Leu	Leu Thr Leu Phe Thr	His Gln Ser Ser Trp Pro	
	500	505	510
Thr Leu His Gln	Cys Ile Arg Val Leu	Leu Gly Lys Ser Arg Glu	
	515	520	525
Gln Arg Phe Asp	Pro Ser Ala Ser Leu	Asp Phe Leu Trp Ala Cys	
	530	535	540
Ile His Val Pro	Arg Ile Trp Gln Gly	Arg Asp Gln Arg Thr Pro	
	545	550	555
Gln Lys Arg Arg	Glu Glu Leu Val Leu	Arg Val Gln Gly Pro Glu	
	560	565	570
Leu Ile Ser Leu	Val Glu Leu Ile Leu	Ala Glu Ala Glu Thr Arg	
	575	580	585
Ser Gln Asp Gly	Asp Thr Ala Ala Cys	Ser Leu Ile Gln Ala Arg	
	590	595	600
Leu Pro Leu Leu	Leu Ser Cys Cys Cys	Gly Asp Asp Glu Ser Val	
	605	610	615
Arg Lys Val Thr	Glu His Leu Ser Gly	Cys Ile Gln Gln Trp Gly	
	620	625	630
Asp Ser Val Leu	Gly Arg Arg Cys Arg	Asp Leu Leu Leu Gln Leu	
	635	640	645
Tyr Leu Gln Arg	Pro Glu Leu Arg Val	Pro Val Pro Glu Val Leu	
	650	655	660
Leu His Ser Glu	Gly Ala Ala Ser Ser	Ser Val Cys Lys Leu Asp	
	665	670	675
Gly Leu Ile His	Arg Phe Ile Thr Leu	Leu Ala Asp Thr Ser Asp	
	680	685	690

Ser Arg Ala Leu	Glu Asn Arg Gly Ala	Asp Ala Ser Met Ala Cys
695	700	705
Arg Lys Leu <sup>u</sup> Ala	Val Ala His Pro Leu	Leu Leu Arg His Leu
710	715	720
Pro Met Ile Ala	Ala Leu Leu His Gly	Arg Thr His Leu Asn Phe
725	730	735
Gln Glu Phe Arg	Gln Gln Asn His Leu	Ser Cys Phe Leu His Val
740	745	750
Leu Gly Leu Leu	Glu Leu Leu Gln Pro	His Val Phe Arg Ser Glu
755	760	765
His Gln Gly Ala	Leu Trp Asp Cys Leu	Leu Ser Phe Ile Arg Leu
770	775	780
Leu Leu Asn Tyr	Arg Lys Ser Ser Arg	His Leu Ala Ala Phe Ile
785	790	795
Asn Lys Phe Val	Gln Phe Ile His Lys	Tyr Ile Thr Tyr Asn Ala
800	805	810
Pro Ala Ala Ile	Ser Phe Leu Gln Lys	His Ala Asp Pro Leu His
815	820	825
Asp Leu Ser Phe	Asp Asn Ser Asp Leu	Val Met Leu Lys Ser Leu
830	835	840
Leu Ala Gly Leu	Ser Leu Pro Ser Arg	Asp Asp Arg Thr Asp Arg
845	850	855
Gly Leu Asp Glu	Glu Gly Glu Glu Glu	Ser Ser Ala Gly Ser Leu
860	865	870
Pro Leu Val Ser	Val Ser Leu Phe Thr	Pro Leu Thr Ala Ala Glu
875	880	885
Met Ala Pro Tyr	Met Lys Arg Leu Ser	Arg Gly Gln Thr Val Glu
890	895	900
Asp Leu Leu Glu	Val Leu Ser Asp Ile	Asp Glu Met Ser Arg Arg
905	910	915
Arg Pro Glu Ile	Leu Ser Phe Phe Ser	Thr Asn Leu Gln Arg Leu
920	925	930
Met Ser Ser Ala	Glu Glu Cys Cys Arg	Asn Leu Ala Phe Ser Leu
935	940	945
Ala Leu Arg Ser	Met Gln Asn Ser Pro	Ser Ile Ala Ala Ala Phe
950	955	960
Leu Pro Thr Phe	Met Tyr Cys Leu Gly	Ser Gln Asp Phe Glu Val
965	970	975
Val Gln Thr Ala	Leu Arg Asn Leu Pro	Glu Tyr Ala Leu Leu Cys

980	985	990
Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu Val Gly		
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Met Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala Leu		
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Arg Ile Leu His Met Glu Ala Val Met		
1025		

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<211> 548

<212> PRT

<213> Homo sapiens

<400> 24

Met Arg Leu Arg Asn Gly Thr Phe Leu Thr Leu Leu Phe Cys

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10

15

Leu Cys Ala Phe Leu Ser Leu Ser Trp Tyr Ala Ala Leu Ser Gly

20

25

30



Gln	Lys	Gly	Asp	Val	Val	Asp	Val	Tyr	Gln	Arg	Glu	Phe	Leu	Ala	35	40	45
Leu	Arg	Asp	Arg	Leu	His	Ala	Ala	Glu	Gln	Glu	Ser	Leu	Lys	Arg	50	55	60
Ser	Lys	Glu	Leu	Asn	Leu	Val	Leu	Asp	Glu	Ile	Lys	Arg	Ala	Val	65	70	75
Ser	Glu	Arg	Gln	Ala	Leu	Arg	Asp	Gly	Asp	Gly	Asn	Arg	Thr	Trp	80	85	90
Gly	Arg	Leu	Thr	Glu	Asp	Pro	Arg	Leu	Lys	Pro	Trp	Asn	Gly	Ser	95	100	105
His	Arg	His	Val	Leu	His	Leu	Pro	Thr	Val	Phe	His	His	Leu	Pro	110	115	120
His	Leu	Leu	Ala	Lys	Glu	Ser	Ser	Leu	Gln	Pro	Ala	Val	Arg	Val	125	130	135
Gly	Gln	Gly	Arg	Thr	Gly	Val	Ser	Val	Val	Met	Gly	Ile	Pro	Ser	140	145	150
Val	Arg	Arg	Glu	Val	His	Ser	Tyr	Leu	Thr	Asp	Thr	Leu	His	Ser	155	160	165
Leu	Ile	Ser	Glu	Leu	Ser	Pro	Gln	Glu	Lys	Glu	Asp	Ser	Val	Ile	170	175	180
Val	Val	Leu	Ile	Ala	Glu	Thr	Asp	Ser	Gln	Tyr	Thr	Ser	Ala	Val	185	190	195
Thr	Glu	Asn	Ile	Lys	Ala	Leu	Phe	Pro	Thr	Glu	Ile	His	Ser	Gly	200	205	210
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Ser	Arg	Leu	Arg	Glu	Ser	Phe	Gly	Asp	Pro	Lys	Glu	Arg	Val	Arg	230	235	240
Trp	Arg	Thr	Lys	Gln	Asn	Leu	Asp	Tyr	Cys	Phe	Leu	Met	Met	Tyr	245	250	255
Ala	Gln	Ser	Lys	Gly	Ile	Tyr	Tyr	Val	Gln	Leu	Glu	Asp	Asp	Ile	260	265	270
Val	Ala	Lys	Pro	Asn	Tyr	Leu	Ser	Thr	Met	Lys	Asn	Phe	Ala	Leu	275	280	285
Gln	Gln	Pro	Ser	Glu	Asp	Trp	Met	Ile	Leu	Glu	Phe	Ser	Gln	Leu	290	295	300
Gly	Phe	Ile	Gly	Lys	Met	Phe	Lys	Ser	Leu	Asp	Leu	Ser	Leu	Ile	305	310	315
Val	Glu	Phe	Ile	Leu	Met	Phe	Tyr	Arg	Asp	Lys	Pro	Ile	Asp	Trp			

320	325	330
Leu Leu Asp His 335	Ile Leu Trp Val Lys Val Cys Asn Pro Glu Lys 340	345
Asp Ala Lys His 350	Cys Asp Arg Gln Lys Ala Asn Leu Arg Ile Arg 355	360
Phe Lys Pro Ser 365	Leu Phe Gln His Val Gly Thr His Ser Ser Leu 370	375
Ala Gly Lys Ile 380	Gln Lys Leu Lys Asp Lys Asp Phe Gly Lys Gln 385	390
Ala Leu Arg Lys 395	Glu His Val Asn Pro Pro Ala Glu Val Ser Thr 400	405
Ser Leu Lys Thr 410	Tyr Gln His Phe Thr Leu Glu Lys Ala Tyr Leu 415	420
Arg Glu Asp Phe 425	Phe Trp Ala Phe Thr Pro Ala Ala Gly Asp Phe 430	435
Ile Arg Phe Arg 440	Phe Phe Gln Pro Leu Arg Leu Glu Arg Phe Phe 445	450
Phe Arg Ser Gly 455	Asn Ile Glu His Pro Glu Asp Lys Leu Phe Asn 460	465
Thr Ser Val Glu 470	Val Leu Pro Phe Asp Asn Pro Gln Ser Asp Lys 475	480
Glu Ala Leu Gln 485	Glu Gly Arg Thr Ala Thr Leu Arg Tyr Pro Arg 490	495
Ser Pro Asp Gly 500	Tyr Leu Gln Ile Gly Ser Phe Tyr Lys Gly Val 505	510
Ala Glu Gly Glu 515	Val Asp Pro Ala Phe Gly Pro Leu Glu Ala Leu 520	525
Arg Leu Ser Ile 530	Gln Thr Asp Ser Pro Val Trp Val Ile Leu Ser 535	540
Glu Ile Phe Leu 545	Lys Lys Ala Asp	

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